

What Is Claimed Is:

1. A structured document management system for managing a structured document, comprising:

a decomposition part that decomposes an inputted structured document into plural partial structures in accordance with a setting and generating a relation between the partial structures as first structural information;

a structural information registration part that generates a relation between elements in the partial structure for each of the partial structures decomposed by the decomposition part as second structural information so that a depth-first node order is assigned to each of the elements in the partial structure and a maximum node order of node orders of elements below the element is associated with the element; and

an information retaining part that retains the first structural information generated by the decomposition part and the second structural information generated by the structural information registration part.

2. A structured document management method for managing a structured document, comprising:

decomposing an inputted structured document into plural partial structures in accordance with a setting and generating a relation between the partial structures as first structural information;

generating a relation between elements in the partial structure for

each of the decomposed partial structures as second structural information so that a depth-first node order is assigned to each of the elements in the partial structure and a maximum node order of node orders of elements below the element is associated with the element; and

retaining the first structural information and the second structural information and managing the structured document.

3. A search device which performs structure searching under a search condition of an ancestor-descendant relation between elements in a structured document, comprising:

an information retaining part that retains first structural information showing a relation between plural partial structures obtained by decomposing a structured document in accordance with a setting and second structural information showing a relation between elements in the partial structure for each of the partial structures; and

a structure search part that determines by the first structural information an ancestor-descendant relation between the partial structures including elements, and if the partial structures are in an ancestor-descendant relation, determines by the second structural information an ancestor-descendant relation between an element which is located on a path from an ancestor partial structure to a descendant partial structure and is a root of a child partial structure of the ancestor partial structure and an element included in the ancestor partial structure.

4. The search device according to claim 3, wherein the structure

search part does not perform determination using the second structural information when the element included in the ancestor partial structure is an element which is the root of the ancestor partial structure.

5. The search device according to claim 3, wherein, when two elements are included in the same partial structure, the structure search part uses the second structural information to determine an ancestor-descendant relation therebetween.

6. A search method which performs structure searching under a search condition of an ancestor-descendant relation between elements in a structured document, the method comprising the steps of:

retaining first structural information showing a relation between plural partial structures obtained by decomposing a structured document in accordance with a setting and second structural information showing a relation between elements in the partial structure for each of the partial structures; and

determining by the first structural information an ancestor-descendant relation between the partial structures including elements; and if the partial structures are in an ancestor-descendant relation, determining by the second structural information an ancestor-descendant relation between an element which is located on a path from an ancestor partial structure to a descendant partial structure and is a root of a child partial structure of the ancestor partial structure and an element included in the ancestor partial structure.

7. The search method according to claim 6, wherein, if the element included in the ancestor partial structure is an element which is the root of the ancestor partial structure, determination using the second structural information is not performed.

8. The search method according to claim 6, wherein, if two elements are included in the same partial structure, the second structural information is used to determine an ancestor-descendant relation therebetween.